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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,410	06/27/2007	Hongjun X. Ning	20008/G012B-US	7567

34431 7590 04/13/2009
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EXAMINER	
HINZE, LEO T	

ART UNIT	PAPER NUMBER
2854	

MAIL DATE	DELIVERY MODE
04/13/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/574,410	NING ET AL.	
	Examiner	Art Unit	
	LEO T. HINZE	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *27 June 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20060705*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Vermylen, US 6,010,032 A (hereinafter Vermylen).

a. Regarding claim 1, Vermylen teaches a method of delivering ink to a printing system, the method comprising: delivering one or more constituent components of press ready ink from separate storage containers (2, 4, 6, Fig. 1) toward an ink well (150, Fig. 1); receiving flow rate values indicative of the flow rates of the constituent components of the press ready ink ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160); setting flow devices to deliver the constituent components at a defined rate of flow based on the received flow rate values ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160); mixing the constituent components into press ready ink in-line during delivery of

the constituent components from the storage containers to the ink well (mixer 107, Fig. 1); and receiving the press ready ink in the ink well (150, Fig. 1).

b. Regarding claim 2, Vermylen teaches the method as defined in claim 1 as discussed in the rejection of claim 1 above. Vermylen also teaches adjusting the rates of flow of the constituent components via the flow devices based on the level of the press ready ink in the ink well ("The height of the paste in chamber 150 is detected by a, sensor 152 which sends a signal representative of the height back to the control system 160. If the quantity of paste in chamber 150 drops too low, e.g. below a lower predetermined height, the control system 160 sends signals to the dispensing devices 62, 63, 64, 66… to speed up proportionally and increase flow through the first mixing chamber 107," col. 9, ll. 44-52).

c. Regarding claim 3, Vermylen teaches the method as defined in claim 2 as discussed in the rejection of claim 2 above. Vermylen also teaches wherein the flow devices increase the rates of flow of the constituent components if the level of the press ready ink in the ink well is too low (col. 9, ll. 44-52).

d. Regarding claim 4, Vermylen teaches the method as defined in claim 1 as discussed in the rejection of claim 1 above. Vermylen also teaches wherein one or more sensors read the flow rates of the constituent components of the press ready ink ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160).

e. Regarding claim 5, Vermylen teaches the method as defined in claim 4 as discussed in the rejection of claim 4 above. Vermylen also teaches wherein the flow rates of the constituent components are adjusted based on the flow rates read by the sensors ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160).

f. Regarding claim 6, Vermylen teaches the method as defined in claim 1 as discussed in the rejection of claim 1 above. Vermylen also teaches wherein receiving the flow rate values indicative of the flow rates of the constituent components of the press ready ink comprises receiving at least a portion of a press ready ink recipe specifying the flow rate values ("For a given recipe for a particular color paste, the required flow rates of liquids and flowable materials are stored in tables in the control system 160, e.g. in a memory of a computer," col. 8, ll. 33-36).

g. Regarding claim 7, Vermylen teaches the method as defined in claim 1 as discussed in the rejection of claim 1 above. Vermylen also teaches wherein the flow devices are variable flow pumps ("The flow rate of the liquid materials… is controlled by dispensing apparatus 62, 63, 64, 66, col. 7, ll. 50-52).

h. Regarding claim 8, Vermylen teaches a method of delivering ink to a printing system, the method comprising: delivering at least two constituent components of press ready ink (2, 4, 6, Fig. 1) toward an ink well (150, Fig. 1); receiving a first flow rate value associated with the first constituent component and a second flow rate value associated

with the second constituent component ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160); setting first and second pumps to deliver the constituent components at rates of flow based on the first and second flow rate values ("The flow rate of the liquid materials… is controlled by dispensing apparatus 62, 63, 64, 66, col. 7, ll. 50-52); and receiving the press ready ink in an ink well (150, Fig. 1).

i. Regarding claim 9, Vermylen teaches the method as defined in claim 8 as discussed in the rejection of claim 8 above. Vermylen also teaches wherein receiving the first and second flow rate values comprises receiving at least a portion of a press ready ink recipe specifying the first and second flow rate values ("For a given recipe for a particular color paste, the required flow rates of liquids and flowable materials are stored in tables in the control system 160, e.g. in a memory of a computer," col. 8, ll. 33-36).

j. Regarding claim 10, Vermylen teaches the method as defined in claim 8 as discussed in the rejection of claim 8 above. Vermylen also teaches setting the first and second pumps to deliver the constituent components at a rate of flow based on a level of press ready ink in the ink well ("The height of the paste in chamber 150 is detected by a, sensor 152 which sends a signal representative of the height back to the control system 160. If the quantity of paste in chamber 150 drops too low, e.g. below a lower predetermined height, the control system 160 sends signals to the dispensing devices

62, 63, 64, 66… to speed up proportionally and increase flow through the first mixing chamber 107," col. 9, ll. 44-52).

k. Regarding claim 11, Vermylen teaches the method as defined in claim 10 as discussed in the rejection of claim 10 above. Vermylen also teaches wherein delivering the at least two constituent components of the press ready ink toward the ink well comprises delivering the at least two constituent components to an in-line mixing structure, wherein the in-line mixing structure creates the press ready ink by mixing the constituent components (107, Fig. 1).

l. Regarding claim 12, Vermylen teaches a method of delivering ink to a printing system, the method comprising: delivering a plurality of constituent components of press ready ink (2, 4, 6, Fig. 1) toward an ink well (150, Fig. 1); measuring flow rates of the constituent components ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160); setting flow control valves to deliver the constituent components at rates of flow based on the measured flow rates ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160); mixing the constituent components into press ready ink in-line during delivery of the constituent components (107, Fig. 1); and collecting the press ready ink in the ink well (150, Fig. 1).

m. Regarding claim 13, Vermylen teaches the method as defined in claim 12 as

discussed in the rejection of claim 12 above. Vermylen also teaches wherein delivering the plurality of constituent components comprises delivering the plurality of constituent components to a mixing structure to mix the constituent components into the press ready ink (107, Fig. 1).

n. Regarding claim 14, Vermylen teaches the method as defined in claim 13 as discussed in the rejection of claim 13 above. Vermylen also teaches wherein measuring the flow rates of the constituent components includes measuring the flow rates during delivery of the plurality of constituent components before the constituent components reach the mixing structure ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160).

o. Regarding claim 15, Vermylen teaches the method as defined in claim 12 as discussed in the rejection of claim 12 above. Vermylen also teaches setting the flow control valves to deliver the constituent components at rates of flow based on a level of press ready ink in the ink well ("The height of the paste in chamber 150 is detected by a, sensor 152 which sends a signal representative of the height back to the control system 160. If the quantity of paste in chamber 150 drops too low, e.g. below a lower predetermined height, the control system 160 sends signals to the dispensing devices 62, 63, 64, 66… to speed up proportionally and increase flow through the first mixing chamber 107," col. 9, ll. 44-52).

p. Regarding claim 16, Vermylen teaches a system to deliver ink to a printing

system, the system comprising: an in-line mixing structure to receive at least first and second constituent components of press ready ink (2, 4, 6, Fig. 1) and mix the first and second constituent components to make the press ready ink (107, Fig. 1); a first flow control device coupled between a first storage container and the mixing structure to control the rate of flow of the first constituent component of the press ready ink between the first storage container and the mixing structure based on a first flow rate value of the first constituent component; a second flow control device coupled between a second storage container and the mixing structure to control the rate of flow of the second constituent component of the press ready ink between the second storage container and the mixing structure based on a second flow rate value of the second constituent component; and an ink well coupled to the mixing structure to receive the press ready ink from the mixing structure.

q. Regarding claim 17, Vermylen teaches the method as defined in claim 16 as discussed in the rejection of claim 16 above. Vermylen also teaches first and second sensors coupled between the first and second storage containers and the mixing structure to measure flow rates of the first and second components ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160).

r. Regarding claim 18, Vermylen teaches the method as defined in claim 16 as discussed in the rejection of claim 16 above. Vermylen also teaches a control device to adjust the first and second flow control devices based on the first and second flow rate

values to change the rates of flow of the constituent components ("controllable flow valves 42, 43, 44, and 46… are all under control of the control system 160 and are used to set a flow rate in the lines 32, 34, 36," col. 8, ll. 19-22 – the ability to set a specific flow rate implies that the flow rate in the lines is known by controller 160).

s. Regarding claim 19, Vermylen teaches the method as defined in claim 18 as discussed in the rejection of claim 18 above. Vermylen also teaches wherein the first and second flow rate values are specified in a press ready ink recipe, and wherein the control device receives at least a portion of the press ready ink recipe ("For a given recipe for a particular color paste, the required flow rates of liquids and flowable materials are stored in tables in the control system 160, e.g. in a memory of a computer," col. 8, ll. 33-36).

t. Regarding claim 20, Vermylen teaches the method as defined in claim 16 as discussed in the rejection of claim 16 above. Vermylen also teaches wherein the first and second flow control devices are pumps ("The flow rate of the liquid materials… is controlled by dispensing apparatus 62, 63, 64, 66, col. 7, ll. 50-52).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anthony H Nguyen/
Primary Examiner, Art Unit 2854

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AU 2854
08 April 2009